25X1A1a

Item Number 1: Model Photography Project (In progress) - [redacted]

The aim of [redacted] project, broadly stated, is to set up and use a facility for [redacted] This [redacted] is an essential tool to be used as part of studies now in progress to determine a number of key [redacted] system parameters.

25X1B0c

25X1X3

As compared with the present simulation technique of photographing transparencies, the model approach offers the following advantages:

a. Elimination of problems associated with the photographic quality of the transparencies.

b. Flexibility in lighting conditions (haze and illuminations can be varied at will).

c. Ability to investigate stereo and color.

d. Ability to imitate interesting areas in model form.

The program is divided into two phases. Phase I can be considered a feasibility stage, while Phase II would be more of an operational period during which a library of photographs would be compiled. Objectives of Phase I would include the [redacted] Once this [redacted] is selected the models can be constructed and then photographed at realistic scales and under realistic lighting. [redacted] A determination will then be made as to whether or not the simulation is sufficiently realistic to justify the Phase II effort.

25X1B0c

25X1B0c

25X1B0c

Attachment to DDS&T-3245-64

[redacted]

25X1B0c

[redacted]

The estimated cost of this program is as follows:

25X1A1a

Phase I (Now - Jan 65)
Phase II (Jan 65 - Jun 65) [redacted]

25X1A1a
25X1A1a
25X1A1a

* Since [redacted] of this amount has already been committed from FY-65 SPS funds and [redacted] is available for commitment, the balance of funds required in Phase I is [redacted]

25X1A1a

Item Number II: Aerial Image Modulation Detectibility Curves - [redacted]

25X1A5a2
25X1A5a2

The object of this program is to measure the 3-bar target modulation detectibility of [redacted] and [redacted] as a function of

a. exposure,

b. processing, and

c. shape of modulation transfer function curve.

25X1A5a2
25X1A5a2
25X1A5a2

[redacted] and the [redacted] have conducted independent studies with a view toward determining aerial image modulation (AIM) curves for [redacted] but there are considerable and significant discrepancies between the curves they developed. Therefore, since an accurate estimate of the predicted resolution for the [redacted] depends on an accurate AIM curve, another independent attempt must be made to compile these data.

25X1X3
25X1A5a2

25X1A1a

It is proposed that the [redacted] be given a contract for approximately [redacted] to conduct this investigation.

Work on this effort would begin ASAP and continue through 1 February 1965.

25X1A1a

Item Number III: Photographic Presentation of Resolution - [redacted]

25X1B0c

The objective of this study would be the development and construction of briefing books [redacted] of photographic quality. This would be a key part of the final Phase I [redacted] presentation, and work must commence immediately if the material is to be ready by 1 February 1965.

25X1X3

25X1A5a2

This project would start ASAP (also with [redacted] and run through February 1965 at an estimated cost of [redacted]

25X1A1a

25X1A1a

Item Number IV: Titan III Utilization Studies - [redacted]

The DCI has been asked by the Secretary of Defense to examine the Titan III missile with a view toward intelligence oriented utilization. In response to this requirement we propose to undertake a detailed study of the Titan III which would additionally tell us what operational parameters could be expected with this family of missiles in the [redacted] We anticipate that we will also explore possible utilization of the Titan III in the [redacted] programs.

25X1X3

25X1X3

25X1A1a

It is estimated that a two to three months program effort would be necessary, at a cost of about [redacted] This would include five full time engineers plus some computer time. Work would begin ASAP and continue through February.

Attachment to
DDS&T-3245-64